UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Offic
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Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/478,370	02/16/00	HAMA K	7363.0010

IM22/0327

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EXAMINER	
ALEJANDRO MULERO,L	
ART UNIT	**PAPER NUMBER**
1763	8

DATE MAILED: 03/27/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/478,370	Applicant(s) HAMA ET AL.	
	Examiner Luz L. Alejandro	Art Unit 1763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 February 2001* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-164* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-164* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15)☐ Notice of References Cited (PTO-892)
16)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
18)☐ Interview Summary (PTO-413) Paper No(s). _____ .
19)☐ Notice of Informal Patent Application (PTO-152)
20)☐ Other:

DETAILED ACTION

Reissue Applications

This reissue application was filed without the required offer to surrender the original patent or, if the original is lost or inaccessible, an affidavit or declaration to that effect. The original patent, or an affidavit or declaration as to loss or inaccessibility of the original patent, must be received before this reissue application can be allowed. See 37 CFR 1.178.

Claims 1-164 are rejected as being based upon a defective reissue declaration under 35 U.S.C. 251 as set forth in the office action mailed on 12/27/00. See 37 CFR 1.175.

The rejection is maintained as stated in the office action mailed on 12/27/00. In the remarks of the amendment filed 02/27/01, applicants stated that a revised declaration was attached to the amendment, but such paper was not found. The examiner requests that the applicants re-submit the revised declaration with the response to this office action.

Claims 17-164 are rejected under 35 U.S.C. 251 as being an improper recapture of broadened claimed subject matter surrendered in the application for the patent upon which the present reissue is based. See *Hester Industries, Inc.* v. *Stein, Inc.*, 142 F.3d 1472, 46 USPQ2d 1641 (Fed. Cir. 1998); *In re Clement*, 131 F.3d 1464, 45 USPQ2d

1161 (Fed. Cir. 1997); *Ball Corp.* v. *United States*, 729 F.2d 1429, 1436, 221 USPQ 289, 295 (Fed. Cir. 1984).

The rejection is maintained as stated in the office action mailed on 12/27/00.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 120-121, 128-129 and 135-136 are rejected under 35 U.S.C. 102(e) as being anticipated by Cuomo et al., U.S. Patent 5,280,154.

The rejection is maintained as stated in the office action mailed on 12/27/00.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 85-87, 92-93, and 99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cuomo et al., U.S. Patent 5,280,154.

Cuomo et al. shows the invention as claimed including an apparatus 10 for processing a process region of a substrate 40, using a plasma, the apparatus comprises: a container substantially formed of a conductive material (see col. 4, lines 3-5); a window partition plate 26 supported on an inner surface of the container, made of dielectric, and defining an air-tight process container portion 12 and an air-tight auxiliary container portion 48,50, (see col. 4, lines 5-9); a work table 36 arranged in the process container portion and having a support face facing the window plate, the substrate being mountable on the support face with the process region facing the window plate (see figure 1); a main supply 30 for supplying a process gas between the window plate and the substrate mounted on the support face, at least part of the process gas being transformable into the plasma (see col. 4, lines 9-11); an antenna 14 for generating an electromagnetic field between the window plate and the substrate mounted on the support face to induce generation of the plasma arranged in the auxiliary container portion and facing the window plate (see figure 1); a power supply 60 for applying a

high frequency voltage to the antenna; and valves for controlling the admission of the gas into the chamber and valves and exhaust pumps for purging the gas form the chamber and for drawing a vacuum inside the chamber (see col. 3, lines 22-24, and col. 4, lines 9-18). It is inherent that the above mentioned valves and pumps are pressure controllers that are used for controlling the pressure in the process container at a predetermined or desired value (also see col. 5, lines 13-16). Also, it would be inherent that since the pressure in the process container can be controlled to a desired pressure, a pressure difference between the pressure in the process container and the pressure in the auxiliary container can be controlled to be lower or higher or the same as a predetermined value.

Cuomo et al. apparatus further comprises grounding means for grounding said container (see col. 4, lines 60-64); a lower electrode arranged in the work table and a power supply for applying a high frequency potential to the lower electrode (see figure 1 and col. 4, lines 32-35); and the apparatus can be used as a plasma depositing apparatus (see col. 8, lines 15-17).

Cuomo et al. does not expressly disclose that the antenna includes a planar spiral coil having a quadrilateral outer configuration, but it would have been an obvious choice of design to one skilled in the art at the time the invention was made to use an antenna having such claimed shape because different shape antennae are known and used in the art and because there is not evidence that the choice of a particular shape of the antenna would significantly affect the overall performance of the plasma processing apparatus (note that even applicants recognize that the shape of the

antenna depends on the process to be performed in the apparatus, see reissue application at col. 9, lines 36-38).

Claims 88-89, 119, 122 and 164 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cuomo et al., U.S. Patent 5,280,154 in view of Benzing et al., U.S. Patent 5,346,578.

The rejection is maintained as stated in the office action mailed on 12/27/00.

Claims 90 and 126 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cuomo et al., U.S. Patent 5,280,154 in view of Ogle, U.S. Patent 4,948,458.

The rejection is maintained as stated in the office action mailed on 12/27/00.

Claims 94-98 and 130-134 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cuomo et al., U.S. Patent 5,280,154 in view of Itoh, U.S. Patent 4,817,558.

The rejection is maintained as stated in the office action mailed on 12/27/00.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-164 are rejected under the judicially created doctrine of double patenting over claims 1-22 of U. S. Patent No. 5,525,159 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The rejection is maintained as stated in the office action mailed on 12/27/00.

Allowable Subject Matter

Claims 1-16 would be allowable if the rejection under 35 U.S.C. 251 (defective reissue declaration) set forth in this Office action is overcome.

Response to Arguments

Applicant's arguments filed on 02/27/01 have been fully considered but they are not persuasive.

Applicants argue that the rejection to claims 1-164 under 35 U.S.C. 251 is improper, because the arguments and/or statements presented in the remarks of the amendments of the parent case were cited out of context and misconstrued, and that they are not related to the significance of a coil in the present invention. However, it is noted that the arguments submitted by the applicants in the remarks of the amendments

filed during the prosecution of the parent case, U.S. application 08/624102, are related to a coil instead of the broader term antenna, now being claimed.

As stated in the previous office action mailed on 12/27/00, applicants repeatedly asserted that their claimed invention, which included a coil along with other features, was distinguishable over the prior art. Argument -- even without amendment to the claims -- in the original application may be sufficient to establish surrender. See Hester Indus., Inc. vs. Stein, Inc., 142 F.3d 1472, 1482, 46 USPQ2d 1641, 1649 (Fed. Cir. 1998), as discussed at MPEP 1412.02.

Since the coil subject matter was surrendered during prosecution, the attempt to remove that limitation in claims 17-164 of this Reissue, and thus broaden those claims as to that feature, constitutes impermissible recapture. See In re Clement, 131 F.3d 1464, 1468, 1469, 45 USPQ2d 1161, 1164 (Fed. Cir. 1997), as discussed at MPEP 1412.02.

With respect to applicants' arguments that the rejection of the claims over the Cuomo et al. reference is improper and contradicting since claim 1 was not included in it, the examiner wants to point out that the rejected claims are broad enough to read on the apparatus of the Cuomo et al. reference, as set forth in the office action mailed on 12/27/00 and as stated in the above rejections. Also, Cuomo et al. reference was not used to reject claim 1 and/or the other non-rejected claims, because the reference does not disclose limitations claimed in such claims. In the instant case, the apparatus of claim 1 further requires an auxiliary exhaust pump for the auxiliary chamber to which a

pressure controller is connected, and such limitation is not taught by the Cuomo et al. reference.

The argument with respect to the amendment of claim 100 have been noted but was not taken in consideration since such claim and its dependent claims were not rejected over the prior art in the office action mailed on 12/27/00.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luz L. Alejandro whose telephone number is 703-305-4545. The examiner can normally be reached on Monday-Thursday from 8:30 to 6:00. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory L. Mills, can be reached on (703) 308-1633. The fax phone number for the organization where this application or proceeding is assigned is 703-305-3599.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

LLAM

March 23, 2001

GREGORY MILLS
SUPERVISORY PATENT EXAMINER
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